Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	

To: The Commission

COMMENTS OF NEXT LEVEL COMMUNICATIONS

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INTRODUCTION AND SUMMARY

Next Level Communications ("Next Level") is the leading provider of advanced technology that integrates high-speed data, voice and video for delivery over existing copper "twisted pair" wires. Its NLevel^3 Unified Access Platform ("NLevel^3 Platform") enables facilities-based telecommunications carriers to offer their customers a full array of broadband services. These proceedings afford the Commission an opportunity to facilitate and accelerate the introduction of those services, whether utilizing the Next Level Platform or otherwise, by the nation's local telephone companies. The decision here will be a critical prerequisite to the

Commission's ultimate goal -- the creation of nationwide facilities-based competition and the provision of broadband services to the American consumer.

Next Level thus has a vital interest in the Commission's expressed efforts to establish appropriate, well-defined rules that will help realize its goal. Founded in 1994 and headquartered in Rohnert Park, California, Next Level has deployed its state-of-the-art systems for more than 100 communications service providers worldwide. While not often a participant in the Commission's proceedings, Next Level is moved to comment in these proceedings because the Commission's current inquiry will determine whether a vigorous, fully competitive marketplace for broadband services in the United States will develop in the near term. Simply put, notwithstanding the facilities-based solution Next Level offers, incumbent local exchange carrier ("ILEC") roll-out of broadband facilities and services is being inhibited -- not by any technological shortcoming -- but by the panoply of rules under review in these proceedings that have the effect of discouraging ILECs from purchasing and deploying advanced broadband facilities.

Requiring ILECs to provide unbundled network elements to their competitors at forward-looking rates has converted what is a highly compelling and competitive business case into one in which they are prevented from recouping justifiable returns on their investments. The problem is not merely the uneconomic return on investment that the regulatory requirements impose; in addition, the existing regulatory environment disadvantages ILECs from competing effectively against cable, satellite and fixed wireless companies, which are not subject to the

same unbundling requirements. Next Level urges the Commission to use these proceedings to establish a regulatory framework that eliminates these disincentives to effective competition.

As we will show, smaller independent ILECs that are already free to make integrated service offerings to their customers have been remarkably successful in deploying the NLevel^3 Platform, and we believe that nationwide deployment would occur if incumbent local exchange carriers' ("ILECs") operations were similarly deregulated. Because broadband deployment is already well underway -- and because the market will, without change, be dominated by unregulated cable providers -- the Commission should act expeditiously to eliminate these unnecessary and anachronistic regulatory constraints. Specifically, we urge the Commission promptly to determine that unbundling obligations do not apply to fiber, remote terminals and digital subscriber line ("DSL") electronics on the customer-side of the ILEC central office that are used to provide broadband services.

I. NEXT LEVEL'S INNOVATIVE PLATFORM PERMITS WIDESPREAD DEPLOYMENT OF A HIGHLY COMPETITIVE BROADBAND SOLUTION FOR ILECS AT A REASONABLE COST.

Next Level's innovative product, the NLevel^3 Platform, delivers any combination of voice (including advanced voice services), high-speed data and multi-stream digital video to residential and business customers over a common very high-speed digital line ("VDSL"). The NLevel^3 Platform consists of equipment located at the carrier's central or end office, in the field and at the subscriber's home or business. These facilities fall within the telephone company's

last-mile architecture.[1] The NLevel[3] Platform obviates the need for facilities-based telecommunications carriers to make massive investment to overlay existing infrastructure because the NLevel[3] Platform creates a fully functioning high-speed digital network over existing copper wire.[2] The NLevel[3] Platform thus brings the benefits of full service broadband solutions to consumers and allows communications service providers to realize significant new revenue streams at highly competitive costs.

Next Level's system is currently the world's most widely deployed communications and entertainment solution for facilities-based telecommunications carriers seeking to use their existing copper networks to provide broadband services. The NLevel[3] Platform has been deployed by over 100 telephone carriers around the world and is serving over 350,000 telephony lines, 40,000 of which also provide data services. Forty of Next Level's carrier customers also are delivering video services over 100,000 lines. Next Level's customers include Qwest Communications International, Inc. ("Qwest"), Bell Canada,[3] many independent

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[1] *See* Attachment 1 and Figures 1 & 2 for a full description of Next Level's NLevel[3] Platform.

[2] In addition, the Next Level system upgrades digital loop carriers ("DLCs") located in remote terminals making them broadband capable. Currently, 40 percent of U.S. homes are served by DLCs that are not broadband ready, but ILECs have expressed an unwillingness to initiate upgrades because the unbundling requirements would require them to make these improvements available to competitors. *See Broadband Access Technologies*, Broadband Regulatory Update, Lehman Brothers (March 4, 2002).

[3] In 2000, Bell Canada completed successful testing of the Next Level system in a multi-dwelling unit ("MDU") in Toronto with a 100 percent take-rate of its integrated service offering. Bell Canada extended its trials to four additional Toronto MDUs in October 2001. *See* Press Release, *Bell Canada Delivers Voice, Data and Video to Multi-Dwelling Residences: Next Level's*

ILECs such as Paul Bunyan Telephone Cooperative ("Paul Bunyan") and Chibardun Telephone Cooperative ("Chibardun Telephone"),[4] facilities-based CLECs such as Lightpath,[5] and other international companies that have begun conducting trials using the Next Level system. The costs associated with deployment of the Next Level platform are rapidly declining, making the technology an even more attractive option; per subscriber deployment costs have fallen fifty percent over the past two years.[6]

Qwest currently offers integrated high-speed data and voice services utilizing the Next Level system in Phoenix, Arizona, and Boulder and Highlands Ranch, Colorado over its existing copper plant.[7] While Qwest has been a leader in the deployment of broadband facilities, it consistently has made clear that it is being hampered by a regulatory regime that has made widespread deployment uneconomical.[8]

Universal Access Platform Gets High Marks in Delivering Full Services to Toronto High Rise, by Clayton Mangione, Director, Technology Development, Bell Canada (Feb. 2001).

[4] These independent ILECs also have been very successful operating as facilities-based competitive local exchange carriers ("CLECs") outside of their local service areas.

[5] Lightpath is the business and telecommunications services division of Cablevision Systems Corporation.

[6] *See* Press Releases, *Next Level Breakthrough Dramatically Reduces Cost of Residential Broadband* Services (July 23, 2001) and *Next Level Arms Manitoba Telecom in Broadband Battle* (Oct. 29, 2001) *available at* http://www.nlc.com.

[7] Integrated voice features require a separately available subscription to Qwest Caller ID and/or Voice Messaging. Qwest also uses the Next Level system separately to provide video services.

[8] *See* Comments of Qwest, *Deployment of Broadband Networks and Advanced Telecommunications Services,* Before the National Telecommunications and Information Administration, Docket No. 011109273-1273-01 (Dec. 19, 2001).

By comparison, smaller independent ILECs that are not subject to burdensome unbundling regulation have used the Next Level platform and have demonstrated significant success in deploying integrated service offerings in the markets they have entered. In each case, they have captured significant market share from competing broadband providers, including cable.[9] Freed from the regulatory burdens imposed on larger ILECs, these companies are beginning to fulfill the Commission's section 706 mandate to bring broadband services to all Americans.[10]

For example, Paul Bunyan currently offers integrated local and long distance telephone services, high-speed data access and digital TV to subscribers as the incumbent carrier in Bemidji, Minnesota and to surrounding areas as a facilities-based CLEC using the NLevel[3]

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[9] Based on Next Level's deployment experience, approximately 30 to 40 percent of those customers who subscribe to an independent ILEC's video services also subscribe to data service, as compared to the 5 to 6 percent national take-rate for broadband data services. In the case of Horizon Chillicothe Telephone, another Next Level customer, more than half of its customers that subscribe for video also take data services. Horizon Chillicothe Telephone is the local telephone provider in Chillicothe, Ohio with a population of nearly 24,000. *See* Press Release, *Horizon Chillicothe Telephone and Next Level Communications: Bringing Broadband Video Services to Rural Ohio* (Feb. 2001).

[10] 47 U.S.C. § 706. As suggested in the *Triennial Review Notice*, the Commission should explicitly consider the goal of encouraging the deployment of advanced telecommunications capability and balance the goals of sections 251 and 706 of the Communications Act of 1934, As Amended (the "Act") through policies that promote both broadband deployment and investment in infrastructure. *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Notice of Proposed Rulemaking, 16 FCC Rcd 22,781, ¶¶ 22, 23 & 25 (rel. Dec. 20, 2001) ("*Triennial Review Notice*").

Platform.[11] As of September 2001, a startling two-thirds of its customers have opted to obtain all three services from Paul Bunyan and therefore receive the benefit of lower prices offered for the bundle and the convenience of a single bill. Chibardun Telephone also provides service over the NLevel[3] Platform to approximately 6,000 access lines in rural Wisconsin.[12] Using the Next Level system as a both an ILEC and as a facilities-based competitive carrier outside its local service area, Chibardun Telephone has captured over 75 percent of the local telephone, cable and long distance markets. Chibardun also is the region's leading data service provider with approximately half of its digital video customers opting to purchase high-speed data service.

II. THE COMMISSION SHOULD ELIMINATE UNBUNDLING REQUIREMENTS THAT DETER INVESTMENT IN AND DEPLOYMENT OF BROADBAND FACILITIES.

To be sure, the broadband initiatives described above constitute first steps in only a handful of markets. However, the success of the deployment of full service offerings in communities as diverse as Phoenix, Bemidji and rural Wisconsin, together with the very early success of Bell Canada,[13] demonstrates that in an environment that is hospitable to competition -- that is free of excessive regulatory burdens -- all telephone companies would be able to compete effectively in the delivery of advanced broadband services.

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[11] Paul Bunyan is a member of the Broadband Visions Consortium, a collection of independent telephone service providers in the Minnesota area that have joined together to offer digital television programming over the NLevel[3] Platform. The consortium currently serves 190,000 lines. *See* Press Release, *Next Level Communications Arms Paul Bunyan to Compete with Cable Companies for Digital TV* (Sept. 11, 2001) *available at* http://www.nlc.com.

[12] *See* Press Release, *The CLEC that Roared: How Chibardun Telephone Took on the Big Boys to Become the Most Successful Game in Town* (Feb. 2001).

[13] *See supra* n. 3.

The current regulatory framework imposes significant burdens on the major ILECs by requiring them to unbundle network elements used to provide broadband services at total element long-run incremental cost ("TELRIC") rates. Not surprisingly, these unbundling requirements have made investment in new facilities unattractive. The unbundling requirements also result in disparate regulation among ILECs and other broadband carriers such as cable, satellite and fixed wireless operators, which also offer consumers full service solutions and are not subject to similar regulatory requirements.[14]

In recognition of the promise of broadband competition and the need to rationalize its regulatory schemes, the Commission in the *Triennial Review Notice* asks whether the unbundling obligations should be limited.[15] Next Level believes that the Commission should make clear that ILECs will not be required to provide unbundled access to new, last-mile broadband facilities. Specifically, we urge the Commission to determine that unbundling obligations do not apply to fiber, remote terminals and DSL electronics on the customer-side of the ILEC central office that are used to provide broadband services.[16]

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[14] Taking advantage of the regulatory disparity, cable providers have aggressively deployed cable modem service and currently serve 65 percent of the 11 million subscribers to broadband services. *See* Broadband Access Technologies, Broadband Regulatory Update, Lehman Brothers (March 4, 2002).

[15] *See Triennial Review Notice* ¶ 35.

[16] *Id.* ¶¶ 24 & 50 (asking whether only certain types of new facilities, such as those intended to provide advanced telecommunications capabilities should be exempted from unbundling requirements. The Commission also asks whether it should distinguish between new and existing construction for purposes of loop unbundling requirements).

This conclusion is supported both by law and sound policy. The requirements of section 251(c)(3) that ILECs must provide requesting carriers with nondiscriminatory access to network elements on an unbundled basis do not apply here.[17] Congress limited the general mandate of section 251(c)(3) by requiring the Commission to consider "at a minimum, whether (A) access to such network elements as are proprietary in nature is necessary; and (B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier" to provide service -- and therefore to free ILECs from unbundling requirements at least where those conditions are not present.[18]

The Supreme Court has made clear that the Commission must give substance to the "necessary" and "impair" standards -- for example by evaluating whether elements are available outside the ILECs' network.[19] The Supreme Court also conclusively rejected the conclusion that *any* increase in cost or decrease in service quality could alone satisfy the statutory test.[20] Rather, it mandated that the Commission analyze whether an unbundled network element

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[17] *See* 47 U.S.C. § 251(c)(3) (providing that ILECs have the --

> duty to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory ...).

[18] *See* 47 U.S.C. § 251(d)(2).

[19] *See AT&T v. Iowa Utils. Bd.*, 525 U.S. 366, 387 (1999).

[20] *Id.* at 392-393.

("UNE") is fundamentally "necessary" and whether its absence would in fact "impair" a competing telecommunications carrier from providing service.[21]

Upon revisiting its unbundling analysis in the *UNE Remand Order*, the Commission interpreted these standards to permit unbundling only where, "taking into consideration the availability of alternative elements outside the incumbent's network ... lack of access to that element would, as a practical, economic, and operational matter, nonetheless *preclude* a requesting carrier from providing the service it sought to offer;" and "taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by [the] requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element materially diminishes" a requesting carrier's ability to provide service.[22]

Even an initial finding that a network element satisfies these standards does not automatically make that element subject to the UNE requirements. In the *UNE Remand Order*, the Commission gave substance to the "at a minimum" language of section 251(d)(2) by establishing five additional factors to be considered in determining whether to make a network element a UNE -- specifically, whether unbundling the element will result in (1) the rapid introduction of competition in all markets; (2) promotion of facilities-based competition,

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[21] *Id.*

[22] See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3721-3722, 3725 (1999) ("*UNE Remand Order*").

investment and innovation; (3) reduced regulation; (4) market certainty; and (5) administrative practicality.[23]

Applied here, this analytic framework virtually dictates that new last-mile broadband facilities may not be, and should not be, subject to unbundling requirements. The availability of alternative elements outside an incumbent's network -- including competing fiber capacity and DSL capacity -- demonstrates that competing carriers are neither precluded nor impaired from effectively providing broadband services. Nothing before the Commission suggests or could establish that such high quality alternatives are not readily available to competitive carriers willing to take the traditional entrepreneurial risks associated with competing in new markets. We stress that point: to the extent that competing carriers want to provide broadband services, they should be required to take the same entrepreneurial risks that ILECs and other facilities-based providers are required to take when they invest in new technology.

To date, regulatory requirements that would allow competing carriers access to new facilities at TELRIC rates, and thereby force ILECs to shoulder all of the capital costs and associated risk without receiving a justifiable return on their investment, have rendered futile the Commission's efforts to encourage competition in this sector. Requiring competing providers to self-provision or purchase facilities from third parties will promote the Commission's goal for the development of facilities-based broadband competition in three ways: (1) competing carriers

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[23] *Id.* at 3747-3750 and *Triennial Review Notice* ¶ 21.

will invest in their own facilities or purchase them from third parties rather than rely on UNEs; (2) third party suppliers thus will have a larger market to serve and will expand their capabilities speeding innovation and reducing costs; and (3) the ILECs will be able economically to invest in broadband facilities because the regulatory disincentives will be eliminated.

Application of the Commission's five factor test similarly leads to the conclusion that new broadband elements on the customer-side of the central office should not be subject to the unbundling requirements. The Commission has requested comment on whether these factors need to be augmented or prioritized, but we do not believe that modification is necessary to achieve the appropriate result under the statute with respect to the elements relevant to accelerated broadband deployment. [24]

- *Rapid Introduction of Competition & Promotion of Facilities-Based Competition, Investment and Innovation.* Unbundling has not encouraged the rapid introduction of broadband competition or facilities-based competition. In fact, mandating access to new broadband facilities effectively has prevented the introduction of facilities-based broadband competition because it has discouraged ILECs from investing in new facilities, deterred the development of facilities-based competition by competing carriers and retarded innovation. Only when ILECs are not required to subsidize competitors and competitors are required to act entrepreneurially in the assembly of their own networks, will innovation occur.

- *Reduced Regulation.* The Commission has made clear that it would reduce regulatory obligations as alternatives to the ILECs' networks became available.[25] Alternative suppliers of last mile broadband facilities are readily available in the market, especially if intermodal competitors are taken into account; given the competitive realities in this marketplace, the most immediate regulatory concern facing the Commission is not how to rein in ILECs, but

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[24] *Triennial Review Notice* ¶ 21.

[25] *UNE Remand Order* at 3749.

how to ensure they have the incentives to compete against the rapidly expanding domination of the broadband market by cable. Only reduced regulation can achieve this result.

- *Market Certainty & Administrative Practicality.* In the case of broadband services and facilities, the combination of administrative certainty and practicality counsel strongly in favor of decisive Commission action removing economic disincentives and allowing market forces to produce meaningful competition and innovation. Eliminating unbundling requirements from last-mile broadband facilities is appropriate at this time and would create market certainty for both ILECs and competitors.

In sum, the question of whether the regulatory model that requires ILECs to unbundle their networks may be appropriate for some basic voice services and for facilities that were part of the ILEC's historical utility-based operations, is a separate issue beyond the scope of Next Level's participation in these proceedings. But the question we address -- how to achieve the Commission's goal for competitive, facilities-based broadband deployment -- can be answered only by a decision that removes broadband facilities from the list of network elements.[26]

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[26] The recent decision declaring cable modem service an "information service," and the Commission's tentative conclusion that wireline broadband access services are "information services" add force to the conclusion that unbundling obligations should not be imposed on new last-mile broadband facilities. *See Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, GN Docket No. 00-185, FCC 02-77 (rel. March 15, 2002) and *In the Matter of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Universal Service Obligations of Broadband Providers, Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements*, Notice of Proposed Rulemaking, FCC 02-42 (rel. Feb. 15, 2002) ("*Broadband Notice*"). When other broadband service providers are considered, it is clear that ILECs do not possess bottleneck control over broadband facilities. In fact, cable operators are by far the dominant providers of broadband services, with approximately sixty percent market share. *See supra n. 14; see also Bells Make a High Speed Retreat from Broadband*, Wall St. J., Oct. 29, 2001 (citing figures from the Yankee Group that satellite

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Finally, removal of UNE regulations will help to stimulate the high technology manufacturing industry. The ability of ILECs to engage in mass deployment and marketing will speed delivery of broadband services to consumers at lower costs. Additional deployment in the United States also will open up international markets to U.S. equipment manufacturers. In Next Level's experience, international carriers often delay adoption of new products until they have had the opportunity to evaluate the success or failure of widespread product deployment here. It is only after the ILECs have successfully deployed certain technologies and products that international carriers can be expected to quickly deploy them. Widespread deployment will further reduce production costs for broadband facilities and enable equipment suppliers to reinvest their resources in R&D and improve their products. Under the current regime, however, even cost-effective full service solutions like the NLevel[3] Platform are not being deployed on a widespread basis because of the economic disincentives created by the unbundling regulations.

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providers currently have about 300,000 subscribers and that there are approximately 60,000 fixed wireless customers). The Commission's decision to define cable modem services as "information services" is a major step toward defining the competitive marketplace in terms of the consumer's interest in broadband choices. A prompt and similarly market-sensitive decision in this proceeding will lead result in a symmetrical regulatory structure that promotes competition and innovation.

* * * * *

For the foregoing reasons, the Commission promptly should eliminate unbundling restrictions imposed on ILECs' new last-mile broadband facilities in order to encourage investment in facilities and enable ILECs to compete on equal footing with other broadband providers. Specifically, the Commission should find that the unbundling obligations do not apply to fiber, remote terminals and DSL electronics on the customer-side of the ILEC central office that are used to provide broadband services. Lifting the unbundling obligations will stimulate broadband competition and concomitant technological investment and innovation, bringing the benefits of broadband service to the American consumer on an accelerated basis. The promise of broadband is often discussed. These proceedings offer the Commission a critical opportunity to make it a competitive reality.

Respectfully submitted,

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NEXT LEVEL COMMUNICATIONS
DESCRIPTION OF THE NLEVEL^3 UNIFIED ACCESS PLATFORM

The NLevel^3 Unified Access Platform (the "NLevel^3 Platform") consists of equipment located at the carrier's central office or end office, in the field and at the subscriber's home or business. The Broadband Digital Terminal ("BDT") is located in a central office or central wire center. Each BDT can serve approximately 4000 customers over each fiber line that it serves. The BDT is a full-service multiplexer and can be deployed in either a fiber-to-the-curb ("FTTC") or a fiber-to-the-node architecture ("FTTN").

In a FTTC architecture, a Broadband Network Unit ("BNU") is placed at a curbside location (such a telephone pole, pedestal or buried area) which is a few hundred feet from the customer's home. For down-stream traffic, the BNU acts as a de-multiplexer that takes a single bit stream coming into it and splits it apart into different service including voice, data, Internet access and video. The BNU then routes the services to the appropriate customer. For up-stream traffic, the BNU serves as a multiplexer. A BNU typically services 8 to 16 customers. FTTC architecture is best deployed in green field communities and in areas where there are clusters of homes at a significant distance from the central office. (See Figure 1 attached hereto).

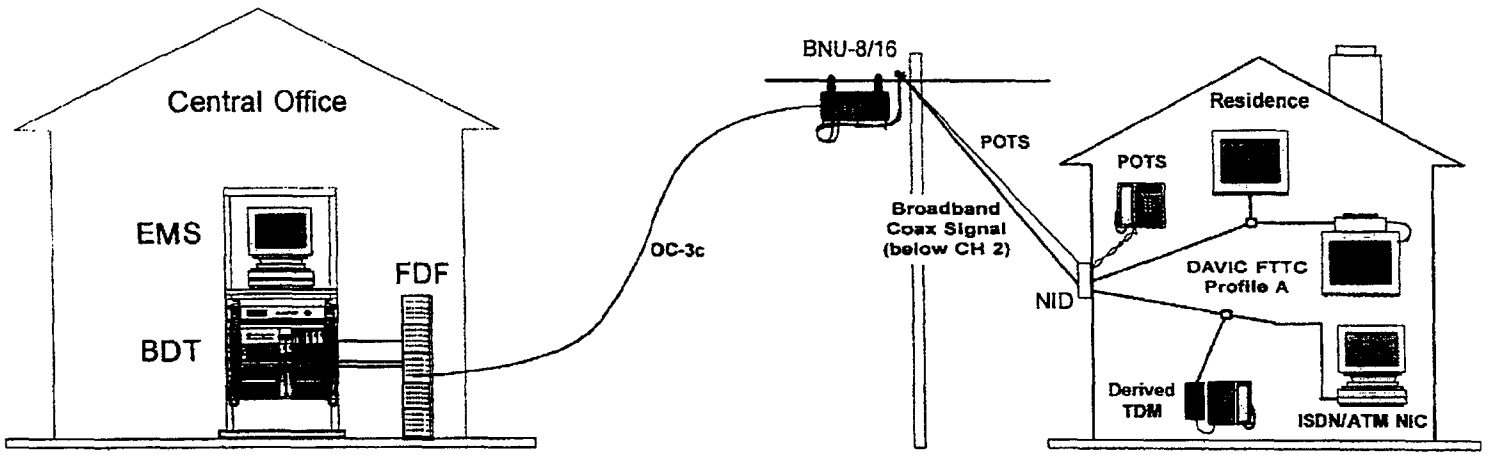
In a FTTN architecture, a Universal Service Access Mutliplexer ("USAM") or a Broadband Service Access Multiplexer ("BSAM") is placed at the servicing area interface, where the fiber feeder line meets the copper distribution lines. The USAM and BSAM perform the

same functions as the BNU and provide the same array of services. The main difference is that the USAM or BSAM can be placed further from the residence (up to 4000 feet) and can serve more customers. (See Figure 2 attached hereto).

The consumer interface consists of a single set top box in the customer's home -- called the "Residential Gateway" -- that provides access to voice, video, and high-speed data services. An additional network interface installed outside the home and invisible to the consumer connects the house to the network. The NLevel^3 Platform allows a consumer to enjoy three separate video streams, voice service (including advanced voice services) and high-speed data service simultaneously. The NLevel^3 Platform utilizes existing internal home wiring to the greatest extent possible, eliminating the need for more than one Residential Gateway in most applications.

In sum, the NLevel^3 Platform enables LECs to provide the full array of advanced services without replacing the existing narrowband network or building a second broadband network.

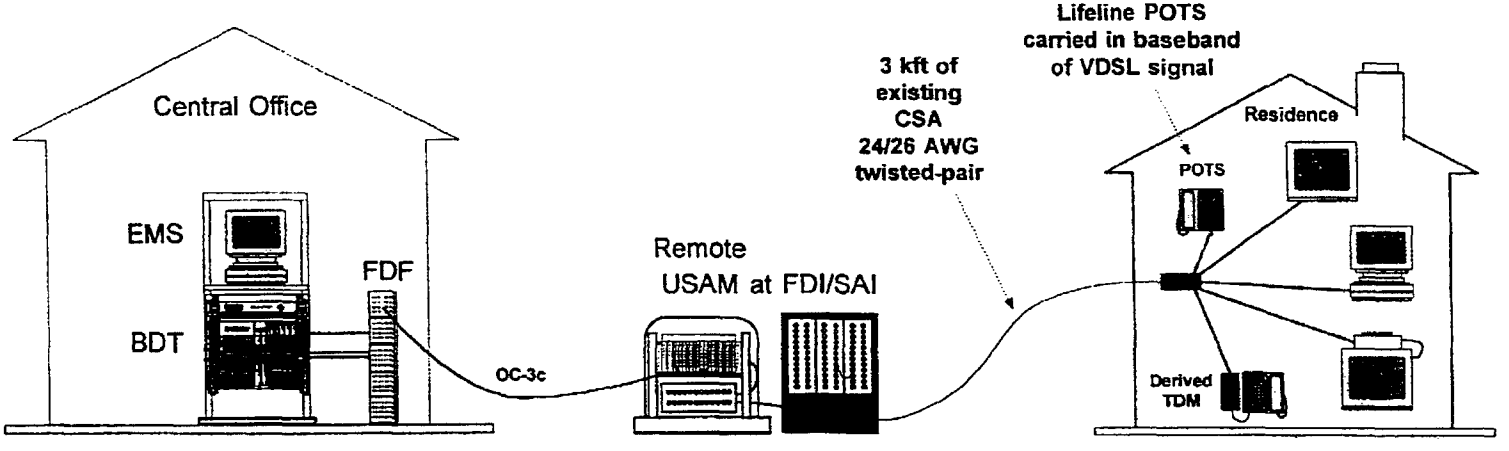
New Growth/Rehab Using FTTC



- Brings a *single* fiber to 8 or 16 home level (BNU-8 or BNU-16)
- Cost parity with existing DLCs – a key design goal and ideal new growth telephony-first strategies, with low incremental broadband upgrade cost
- Compact BNU (<60 lbs.) can be wall, pole, strand or pedestal mounted
- Packaging aimed at installation time and cost reduction

Figure 1

VDSL Overlay for Full Service Support



- For full service network applications, with multiple devices per home supported, VDSL can be provided from a USAM at the FDI/SAI (if FDI/SAI is less than 4000 ft from subscriber)
- Point-to-point VDSL drop terminated in a Residential Gateway which provides home network interfaces without the need for multiple Digital STBs

Figure 2